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ABSTRACT

This study looks at the higher education learning needs of population subgroups by reviewing research concerning the classroom experiences of minority group students and women. The importance of addressing these questions is raised by the current and expected growth in ethnic minorities in the United States. Findings indicate that Black students who set goals for themselves, get involved on campus and develop positive relationships with faculty, enhance their academic success. A sense of academic progress is important to this group. Research on Hispanic students indicates that many enter college several years after they have graduated from low-income, minority high schools, have poor records of achievement, little motivation, and uncertain goals. Many live at home, are uninformed about financial aid and have no models. Yet Hispanics have great respect for higher education and college professors in particular. Findings on Asian American students indicate that although their achievement patterns suggest otherwise, many consider themselves members of a minority group and need the same services available to other "at-risk" populations. Research on women finds that they perform best when challenged and supported or forced to use higher-order cognitive skills to reach expected outcomes. Overall the findings indicate that classroom experiences are important to students. Included are over 70 references. (JB)

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Diversity in the College Classroom

Learning Needs of Today's Student Populations

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Diversity in the College Classroom

Learning Needs of Today's Student Populations

Abstract

As population subgroups become increasingly significant parts of the college student population, their specific learning needs warrant attention. In this study research concerning the classroom experiences of students who are Black, Hispanic, or Asian American, and women students is reviewed. Conclusions suggest that involvement in academic experiences and contact with instructors who are role models are important. Additional study to discern within-group differences is recommended.

As inhabitants of almost any college campus know, the diversity of today's college student population is increasing. In fact, changing demographics have been named the principal external influence on higher education (Organization for Economic Cooperation and Development, 1988). The numbers suggest that college students are strikingly different from each other and from the more traditional college student populations of the past. The impact of this population shift should not be minimized. A major future direction for college student research is to investigate today's minority populations. They are on their way to becoming the majority populations of tomorrow (Pascarella & Terenzini, 1991).

Fortunately higher education research has begun addressing questions about population subgroups. Investigations of demographics (i.e., Estrada, 1988; Hsia & Hirano-Nakanishi, 1989; Levine, 1989), the social needs of ethnic minorities (i.e., Abraham & Jacobs, 1990; Hughes, 1987; Mallinckrodt, 1988; Nettles & Johnson, 1987), and the learning and leadership patterns of women (i.e., Basow & Medcalf, 1988; Bernstein, 1986; Clinchy, 1989; Hall & Sandler, 1984) have increased our understanding today's students. Although the literature is substantial, much of it focuses on demographics or on students' needs for social integration. Relatively few studies address topics related to the academic needs of population subgroups. As diverse groups become more significant parts of the total student population, findings that illuminate their academic experiences warrant further attention. This study concerns some such findings. It is a review of current research on the learning needs and contributions to learning of students who are members of ethnic minority groups and of women students.

It was the original intention of the researcher to investigate not only the learning needs of population subgroups, but also their contributions to the learning of others. As the review proceeded no studies focusing specifically on contributions to learning were found, and few studies focus specifically on learning needs. Rather, learning needs often are addressed as parts of other investigations. Here we look only at learning needs and investigate a broad range of findings. The conclusions are intended as guides for instructors who find that college students are strikingly different from their peers and from the student groups of a few years ago.

Diversity: A Rich Difference

Twenty years ago most college students were white Americans and over half of them were male. They were eighteen to twenty-four years old, attended college full time, and lived in college housing (Astin, Green, & Korn, 1987). Today more than half of all college students are women. Almost 20% are Black, Hispanic, Asian-American, or American Indian (The nation: students, 1991). This diversity characterizes today's college student population and offers rewards for all students. Now students have opportunities to work and live with peers whose cultures, abilities, and interests are significantly different from their own.

Students with different backgrounds and characteristics can be expected to have different needs in all kinds of learning situations. Black students, Hispanic students, and Asian American students are groups whose ethnicity plays a part in their learning. Women students seem to learn in ways that are less evident in the typical college classroom than the learning patterns of men students. Yet ethnic minorities and women make important contributions to American higher education. In celebrating their differences, today's students contribute to higher learning in ways that are distinctly new.

Ethnic Minorities:

Growing Populations in the U.S.

During the 1980s the population of the U.S. grew at a slower rate than in any decade since the Great Depression, yet minority populations expanded at two to fourteen times the corresponding non-

minority populations. The trend is expected to continue. Collectively, minority populations will make up one-third of the U.S. population by 2000 (Barringer, 1991).

Although minority populations are increasing, Blacks and Hispanics remain underrepresented in colleges and universities. In 1988, 78.8% of U.S. college students were white, 9.2% were Black, 5.6% were Hispanic, and 3.9% were Asian American. The respective 1978 percentages were white, 81.4%; Black, 10%; Hispanic, 4%; and Asian American, 2%. While total numbers of Black and Hispanic youths are up sharply, fewer Black students go to college now than in 1978. Hispanic enrollment shows a slight increase while Asian American enrollment almost has doubled. Collectively, minority enrollment is 20%. If trends continue, non-whites will make up 40% of the college-age population by 2025. By 2050 they will become the majority. These trends alarm educators since increasing numbers of young people account for the growth and Asian-American students are the only ethnic minority group to attend college in increasing proportions (Barringer, 1991; Estrada, 1988). Therefore it is important for Black and Hispanic young people who attend college to be successful in the classroom and persist until graduation.

Perhaps one route to success for minority students draws on the advice of Astin (1985), Tinto (1987), and others. They recommend taking steps to fully involve all students in the life of the institution. Pascarella and Terenzini (1991) seem to agree. After reviewing twenty years of research on college students, they concluded that

> the more complete the integration between a student's academic and social life during college, the greater the likelihood of his or her general cognitive and intellectual growth. (p. 159)

Are minority students achieving this kind of integration? Since most research on various aspects of the college experiences of minority students centers around access and persistence, institutional type, social integration, and support services, and few studies are organized around classroom experiences specifically, conclusions about academic integration are difficult to draw. Nevertheless, the review revealed some findings that may prove instructive to faculty members and others concerned with helping minority students achieve academic integration in college.

Black Students

Black Americans compose 12% of the U.S. population and their numbers are growing at a rate faster than that of the population in general. In the 1980s numbers of Black Americans grew more than 13%, compared to an overall population growth rate of 9.8% (Barringer, 1991). Even so, since 1980 there has been a steady decline in college attendance among Black Americans. The numbers of Black students who graduate from high school are rising, but more of them select options other than college after high school (Arbeiter, 1987). Therefore it is important not only to recruit Black students actively, but to encourage the academic success of each Black student in the college classroom.

Once enrolled, many Black students who attend predominately white universities need to resolve issues of social integration before they can focus on becoming adjusted academically. They realize the ultimate benefit of attending a predominately white institution, but often they learn in an atmosphere of loneliness and isolation. In the academic arena, many are preoccupied with issues of basic intellectual survival rather than with issues of intellectual excellence. They become frustrated with the range of academic offerings and the inability of predominately white universities to offer meaningful social, personal, emotional, and cultural development opportunities (Hughes, 1987).

On the other hand, Black students at predominately Black institutions seem to enjoy a quality education steeped in the Black experience. They establish relationships with intelligent peers and faculty members who are Black and learn in a racist-free environment. Many note a continued struggle for academic excellence on the part of Black institutions. Nevertheless, Black students are more likely to persist and earn better grades at predominately Black colleges. They seem to benefit from an environment of support that focuses on adapting to the demands of undergraduate academic life (Hughes, 1987; Pascarella & Terenzini, 1991).

The academic performance of Black and white students at predominately Black and predominately white institutions reveal that academic performance is strongly related to satisfaction with college, high levels of campus involvement, and positive relationships with faculty members. Yet Black students on white campuses are significantly less involved than white students and are less likely to report positive

relationships with faculty members. Many colleges and universities offer programs to help Black students overcome academic deficiencies and adjust to the demands of the college classroom. Most focus on acquiring the basic skills that many Black students lack. However the positive effects of these cognitively-oriented programs is uncertain. Avenues to improved self-concept and emotional well-being may be more beneficial to Black students as they adjust to the academic requirements of college (Abraham & Jacobs, 1990; Allen, 1988; Crosson, 1988; Pascarella & Terenzini, 1991; Sowa, Thomson, & Cennett, 1989).

Black students who persist in college seem to set goals for themselves, expect to perform well in the classroom, and identify skill areas in which they are weak. But few Black students possess this winning combination. A sense of optimism about academic success coupled with recognition of areas for skill improvement is atypical of the population. It remains, however, that college experiences, and especially classroom experiences, are among the strongest at-college determiners of persistence for Black students. Persistence is critical because transfer students, especially Black transfer students, have lower levels of attainment than do students who persist at their original college (Donovan, 1984; Kocher & Pascarella, 1990; Levin & Levin, 1991; Trippi & Stewart, 1989).

The experiences of Black students during the time of transition from high school to college can influence persistence. For freshmen, initial success in the classroom is important. Black students end the freshman year with lower grade point averages than white students who enter with comparable high school grade point averages. They also end the year with fewer credits and greater likelihood of dropping out. Early learning assistance, attention to skill development, emphasis on academic advising, and training in study skills can lead to improved grades. Black students at historically Black colleges seem to react positively to pressure toward competence. Grades in major subjects improve and students express positive feelings about the quality of instruction when Black students are urged to improve their classroom performance (Fleming, 1988; Giles-Gee, 1989; Lunneborg & Lunneborg, 1986; Pounds, 1989).

Many Black students regret the absence of appropriate Black role models in the classroom (Hughes, 1987). Intellectual role models are important to minority students as they learn to persist and find success in college, but Black students who need someone to offer guidance and support and often have

trouble forming relationships with white faculty members. For disadvantaged minority students, whose persistence can depend on academic support, "like-person role models who have successfully navigated the waters of majority institutions" (Tinto, 1987, p. 161) can make a difference. Even though their importance to students is recognized nationally, faculty members who are members of minority groups are scarce. It is difficult for instructors to serve as models for increasing numbers of students while they are performing the duties of faculty members. Nonetheless, they cannot be replaced as mentors who can assist minority students as they practice intellectual approaches to learning situations (Richardson, Simmons, & de los Santos, 1987; Walton, 1979).

In the classroom many Black students need to practice setting and achieving goals. Some fail to recognize their academic deficiencies. Others have faced failure in previous academic situations and need frequent reinforcement from instructors. They also need opportunities to demonstrate the learning they have gained through non-traditional ways. Most Black students have had little experience with delayed gratification and hold unrealistic views about the time and academic demands of university learning. Instructors who encourage them to spend more time in the learning process, even if their first grades are disappointing, can make a difference in their success (Astin, 1985; Pounds, 1989; Sedlacek, 1987; Tracy & Sedlacek, 1984, 1985, 1987).

Although specific programs in ethnic studies and contact with instructors who are members of minority groups are not absolute requirements for success in the classroom, "cultural relevance" seems to be important. Effective instructors know the importance of previous experiences to learning for all students. They define course content and organize discussions in meaningful ways. They deliver the curriculum in terms of "win/win" situations and prefer a middle ground that does not "force faculty members to choose between teaching Shakespeare and Alice Walker" (Green, 1989, pp. 151-152).

Black students who are well adjusted academically seem to have positive attitudes towards competitive and cooperative learning situations.

> Academic adjustment may be associated with greater acceptance of different learning situations and greater responsiveness to the demands of the traditionally White

> environment. . . . Adjustment to the academic environment may require Black students having to exercise strategies that more closely resemble the demands of the dominant culture (Thompson & Fretz, 1991, p. 447)

In the classroom instructors who are knowledgeable about situations in which Black students are likely to encounter adjustment problems can work to ease the adjustment process. Instructors of Black students need to be aware of the considerable variability in the minority student population. Minority students come to campus with varying cultural, social, economic, and academic backgrounds. While many are academically underprepared, most have learned to manage difficult life situations. Usually they are less involved and less satisfied with college life than are white students, and on campus they receive mixed messages of support from faculty other students (Pounds, 1987; White & Sedlacek, 1987).

Regardless of institutional type or individual circumstance, Black students who set goals for themselves, get involved on campus, and develop positive relationships with faculty members can enhance their academic success. They welcome a healthy balance of challenge and support. While opportunities for friendship and participation in campus life contribute to academic success, a sense of intellectual progress also is important. Involvement with faculty members who provide challenging opportunities to learn can result in positive classroom experiences for Black students (Sedlacek, 1987; Tracy & Sedlacek, 1985; Cibik & Chambers, 1991; Hughes, 1987; Mallinckrodt, 1988; McCauley, 1988; McPhee, 1990; Williams & Leonard, 1988).

Hispanic Students

Even though more Hispanic students attend college now than in the past, Hispanics are still underrepresented in college. Of the nearly 19 million Hispanics in the U.S. in 1988, only 631,000, or 3.3% of the population, went to college. While Hispanics are on their way to becoming the largest minority group in the U.S., they remain disadvantaged educationally. Only half of all Hispanic students who enter kindergarten graduate from high school, and only one-third of these enroll in college (Fields, 1988).

The term Hispanic is not a homogeneous one. It is a collective label used to describe a group that includes Mexican/Chicano, Puerto Ricans, Cuban Americans, and others whose countries of ethnic origins

were colonized by Spain. Because of the diverse social, cultural, and economic backgrounds within the Hispanic population, educators working with Hispanic students face a number of complex issues. Regardless of social or cultural background, most Hispanic students have to decide whether to become assimilated or integrated into the campus structure. Assimilated Hispanic students give up their cultural identity and move into the larger society. Integrated individuals move toward the larger society while maintaining their cultural persona (Quevedo-Garcia, 1987).

Regardless of their choice, Hispanic students bring to college an especially strong identity with home and family life. Often they are the first of their families members to attend college and their adjustment can be more difficult than for members of other minorities. Like Black students, Hispanics need the aid of a supportive college community. They naturally seek guidance from instructors and faculty members, but are not assertive about identifying their needs (Fiske, 1988).

Many Hispanic students are academically underprepared for college work. Some choose community colleges for a low-cost, and often remedial, education while they live at home. Hispanic students who live at home seem to be more satisfied with their undergraduate experiences, but many who begin at community colleges never transfer to four-year institutions. Those who transfer graduate at lower rates than white students (Astin, 1982; Fields, 1988; Fiske, 1988).

Considering the low rate of attendance and high incidence of underpreparation, it is surprising that impressive percentages of Hispanic students plan to earn doctorates and professional degrees. In fact, Hispanics are more likely than the general student population to aspire to graduate school as undergraduates. In 1986, 12.5% of Hispanics and 9.6% of students in general reported their intention to pursue professional graduate degrees. More than 60% of Hispanic students named graduate school preparation as an important reason for going to college. Equal numbers of Hispanics and white students expected to earn at least a B average as undergraduates (Carnegie Foundation for the Advancement of Teaching, 1988).

Like Black students, Hispanic students report that Hispanic role models on campus, especially in faculty positions, can make significant differences in their achievement.

> Scratch a Hispanic student and you'll probably find someone in his or her background who showed a special interest in them, who took them aside and gave them the aspiration and encouragement to go on in higher education (Fiske, 1988).

But Hispanic students rarely find Hispanic mentors among faculty members, especially at the university level. Most continue their pre-college habit of seeking advice from family members, many of whom have not attended college themselves.

In the classroom, Hispanic students seem to be teacher-oriented learners. They may require personal interaction from instructors while preferring a formal teacher-student relationship. Hispanic students for whom English is a second language enjoy working together in groups and sharing their ideas with others. When meeting individually with professors, they may choose to be accompanied by a friend, even though the friend is uninvolved in the conversation (Griggs & Dunn, 1989).

Like all students in general and Black students in particular, Hispanic students need to become involved in learning. Many enter college poorly prepared to read, write, and calculate on the college level. To be successful, they need to develop assertiveness skills. In the Hispanic society, assertive behavior is considered rude. Therefore Hispanic students are reluctant to approach instructors for help or disagree with others in the classroom (Grossman, 1984; Quevedo-Garcia, 1987). Even though success in college depends on the ability to contribute to intellectual discussions and demonstrate competence in front of a group, many Hispanic students find this difficult, especially as freshmen.

Some Hispanic students experience extreme stress during the first weeks of college. They are unaccustomed to the cognitive demands of instructors and can be devastated by early failure (Skinner & Richardson, 1988). Many are the opposites of students who usually persist. College graduates most often have good secondary preparation, effective study habits, and high self-esteem. They are affluent and enter college directly after high school. They live on campus and know how to apply for financial aid. On the other hand, Hispanic students often enter college several years after they have graduated from low-income, minority high schools. They have poor records of achievement, little motivation, and uncertain goals. Many live at home, are uninformed about financial aid, work to support their families, and have no models

on which to base successful college experiences (Fields, 1988). Yet, Hispanic students have great respect for higher education in general and college professors in particular. Often those who graduate overcome sizeable odds to do so.

Asian Americans

As a group, Asian American college students seem quite different from students who are Black or Hispanic. Many Asian American students are high achievers throughout their careers in school and excel above other racial groups on traditional indicators of achievement. Their characterization as "whiz kids" or members of the "model minority" has led to public perception that Asian American students do not need the educational services usually made available to members of other minority groups. At times sociologists impede their progress by identifying them as a group not plagued with the social problems of other ethnic minorities. In reality, many Asian Americans share experiences of economic and racial discrimination with Blacks and Hispanics (Suzuki, 1979, 1989; Wang, 1988).

In 1990 the 7.2 million Asian American residents of the U.S. constituted 2.9% of the total population. The count more than doubled since 1980, reflecting a rate of growth (107% for Asian Americans) far outdistancing that of the Hispanic population (53%), the Black population (13%), and the American population as a whole (9.8%) (Barringer, 1991). Although the term Asian American describes a highly diverse segment of the population including Asian Indians, Chinese, Filipinos, Japanese, Koreans, and Vietnamese, Asian Americans share one important characteristic. They view a college degree as a way to move up in a society that may otherwise restrict their success. High school and college graduation rates evidence their dedication to learning. Each year about 67% of the total U.S. population over age 24 graduates from high school, compared to over 75% of Asian Americans. Only 16.2% of the total population over age 24 graduate from college, while more than 33% of Asian Americans over age 24 have a college degree. In 1978, 206,000 Asian Americans attended colleges and universities as undergraduates. By 1988 this figure had more than doubled to 437,000. In other words, Asian Americans increased their participation in higher education by more than 100% in ten years. Once enrolled in college, Asian American students usually persist. In 1986 only 2% of the Asian American high school seniors who entered

college in 1980 reported that they left college without receiving at least a bachelor's degree (Hsia & Hirano-Nakanishi, 1989; The nation: Students, 1991).

In the absence of research concerning classroom experiences of Asian American students, research on the secondary school population was examined for clues about teaching college freshmen. For Asian American high school students, achievement seems to depend on the student's belief in his or her own ability to control the environment. Asian American high school seniors appear to have a complex but logical view of the educational process. They form academic self-concepts based in past performance, perceptions of their instructors' evaluations of their potential, and family attitudes and expectations. Speaking a foreign language at home can lower the achievement and sense of control of Asian American high school students but can raise their aspirations and expectations (Hsia, 1987).

In college Asian American students plan to continue their pattern of academic achievement and go to graduate or professional school. College students whose proficiency in the English language is limited resort to a variety of strategies for academic success, including a tendency to concentrate on mathematics and the physical sciences. Consequently some Asian Americans earn baccalaureate degrees in without overcoming deficiencies in the English language (Hsia, 1987).

Asian American male students are more likely to participate in classroom discussions than are Asian American female students and white students of both sexes are more likely to speak than are Japanese Americans of the same sex (Hutchinson, Arkoff, & Weaver, 1966). Classroom observation led Endo (1974) to describe the verbal participation of Asian American students as hesitant, disorganized, and nervous.

> Part of the problem is a deficiency in language skills. . . . Cultural patterns of obedience and acquiescence, backed by racism that generated fear and denied the worth of Asian cultures and communities . . . all contributed to the development of weak, unassertive individuals. (pp. 6-7)

Others describe the verbal exchange between instructors and Asian American students as limiting enough to interfere with learning (Hsia, 1987; Takeucki, 1974).

To compensate for English language deficiencies and preferences for limited classroom participation and writing assignments, some Asian American students who are recent immigrants to the U.S. take English courses in less demanding English departments. They also assume lighter class loads, choose math, science, or computer science majors, and spend more hours studying than do white students. Academic success does not come to easily to students who are recent immigrants. Many make personal and psychological sacrifices to meet the academic standards they set for themselves (Sue & Morishima, 1982; Tsang & Wing, 1985). Some English-proficient Asian American students adopt similar strategies. They might complete the freshman year with less than the normal course load or take additional time to graduate rather than perform poorly in the classroom (Hsia, 1987).

Although their achievement patterns suggest otherwise, many Asian American students consider themselves members of a minority group much like Blacks or Hispanics and need the same services available to other "at-risk" populations. Like Black and Hispanic students they benefit from role models among faculty and students. In turn, they often serve as role models for their peers and provide valuable academic support to incoming Asian American students (Bagasao, 1989).

Women: The New Majority in the Classroom

In 1985 researchers who study change in a national sample of college freshmen named the evolving role of women the most dramatic college student trend of the last twenty years (Astin, Green, & Korn, 1987). Their pronouncement seems well-founded. Today more than half of all college students are women. In 1988 women received 54% of the college degrees awarded in the U.S. (The nation: students, 1991).

Unlike the classroom experiences of minority students, the classroom experiences of women students are being investigated and findings may prove helpful to instructors. For example, the gender of the instructor influences the participation levels of students. More student participation, student and teacher questions, and feedback to students is recorded in classes taught by women. When the instructor is male, men students participate in classroom discussions at a frequency three times greater than that of women students. When the instructor of female, participation levels for men and women students are about the same (Treichler & Kramarae, 1983).

The phenomenon of women's silence in the classroom has received considerable attention in the literature. It is a condition on which poet Adrienne Rich commented in 1979. Rich observed that educational practice is based on the adversarial style of discourse more often preferred by men than women. She defined the problem of silence not as a deficiency in women, but as a limitation of our educational institutions. "Argument is not the only existing style of discourse, but it is the only kind that has found much favor in the groves of academe." (Clinchy, 1989, p. 649).

Traditionally the feminine voice has been ignored on the campus and in the undergraduate classroom. Instead of being a place where stereotypical differences between the sexes are reduced, the college culture seems to preserve the differences. The resulting "chilly" classroom climate can impede the academic development of women. While the atmosphere does not exist on all campuses, it occurs often enough to define a pattern. Instructors, students, and colleagues send invisible messages to women students, faculty members, and administrators that they are not on the same levels as their male counterparts. The messages often seem to be normal components of our culture and many women react by doubting their abilities. Some are unable to resolve the resulting conflicts about careers and traditional female responsibilities (Hall & Sandler, 1984).

Some specific classroom behaviors define the pattern. For example instructors call on men in class more often than they call on women. When women speak out in class their contributions often are minimized. Faculty members and peers interrupt women students more often than they interrupt men students. Some faculty members and advisors express surprise when women set demanding career goals for themselves. Many women students seem reluctant to argue a point of view in class. Research designed to investigate this behavior suggests that women process information and reach conclusions differently from men. After a ten-year investigation, Clinchy (1989) concluded that men have "a way of knowing we call separate knowing" (p. 649). Separate knowing is a detachment akin to critical thinking or the scientific method. Women, on the other hand, engage in "connected knowing." Instead of arguing, they are inclined to adopt the other person's point of view. The time it takes to form this mental attachment can explain women's silence in the classroom.

Separate knowing finds its voice in argument; connected knowing is a narrative voice. Therefore women find the sharing of stories to be more valuable to their learning than arguing different points of view. Beyond the "bland agreement" of the classroom, Clinchy (1989) suspects that women are learning in dynamic, collaborative ways. She asks college instructors to consider this feminine point of view when they structure the classroom environment.

Tannen (1991) agrees with Clinchy's conclusions. After noting that men talk more than women in the classroom, Tannen posits that the language patterns of children have "stunning implications for classroom interaction" (p. B1). Most instructors assume that discussion is a necessary part of successful performance, yet men students find it easier to put forward their ideas than do women students. Class discussions, especially those led by men instructors, often are argumentative, but women seem to prefer a reflective or anecdotal style. Since "ritual opposition" is the antithesis of the way most women prefer to interact, they do not participate on the same level as men students.

> These different teaching styles must make our classrooms wildly different places and hospitable to different students. Male students are more likely to be comfortable attacking the readings and might find the inclusion of personal anecdotes irrelevant and "soft." Women are more likely to resist discussion they perceive as hostile, and, indeed, it is women in my classes who are most likely to offer personal anecdotes. (p. B3)

Men students seem more comfortable with the public nature of the classroom. Women, on the other hand, prefer speaking in private to a small group of people. Tannen (1991) advises making small group discussion a part of any class. In a classroom experiment involving both men and women students, she found that some women students who did not contribute to class discussions became leaders in small groups. None of the participants in the experiment objected to the small group format and some men and women students noted that it raised their awareness about classroom participation. Tannen is "convinced that having the students become observers of their own interaction is a crucial part of their education" (p. B3).

Many women find the classroom inhospitable because of the structure of talk itself. Instructors who are sensitive to their choice of words can draw upon the special resources of women as a communicating population. Methods include demonstrating a shifting leadership style, generating a high degree of student involvement, and choosing examples carefully. Effective instructors call on men and women students by name, make eye contact with each student, and use inclusive language. They also encourage women to speak up and feel at home in the traditional classroom structure (Hall, 1982; Treichler & Kramarae, 1983).

Some findings about non-classroom experiences are relevant here because they concern women's learning in indirect ways. In general, men attribute the positive outcomes of situations primarily to internal causes such as ability or effort. Women attribute outcomes to external causes such as luck or task difficulty. When men attribute success to skill, women attribute success to luck. Also women are more likely than men to assume blame for failure to perform well. These findings have powerful implications for the classroom. Since women are reluctant to believe that successful outcomes are products of their effort or intelligence, they need frequent, positive, and specific reinforcement. Low-achieving women need frequent accountability to instructors. They perform best when challenged and supported or forced to use higher-order cognitive skills to reach expected outcomes (Basow & Medcalf, 1988; Eisenhart, 1985; Kanoy, Wester, & Latta, 1990; Powers-Alexander, et al, 1983).

Limitations

The purpose of this review is to organize research on the learning needs of students who are members of ethnic minority groups and of women students. The substantial gaps in the literature revealed by the review constitute at least two limiting factors. The first factor involves the type of research on record, especially studies concerning students who are members of ethnic minority groups. Research about the academic experiences of minority students are few and those focusing on classroom experiences specifically are virtually non-existent. Numerous studies illuminate other aspects of the college experience for Black students, but few investigate other aspects of college for Hispanic or Asian American students. Before conclusions of use to instructors of minority students can be drawn, additional investigation is

recommended. Reports concerning the classroom experiences of women students are more numerous, and conclusions should prove useful to instructors as they construct classroom experiences that acknowledge women's learning needs.

The second limiting factor applies to all of the populations examined in this review and concerns the unit of analysis of most of the research on populations subgroups. As noted by other authors (for example, Casas & Atkinson, 1985; Hsia, 1987 & Stewart, 1988), special populations research seems to ignore within-group differences. Both Hsia and Stewart remind readers of the numerous groups within each minority subgroup. Hsia cautions that time in the U.S. of the families of students who are the subjects of study can influence findings. Casas warns that failure to identify within-group differences can lead to stereotyping. Perhaps warnings about overgeneralization should be offered for all of the subgroups discussed here. There appears to be a tendency to group Black students, Hispanic students, Asian American students, and women students on the basis of ethnicity or gender and ignore or minimize the potential influence of intellectual ability, pre-college experiences, and other important variables. Finer levels of within-group analysis could prove useful to instructors who work to create academic experiences that address the specific needs of students. Considering these limitations, the following conclusions are offered.

Implications of the Review

On the basis of this review, the advice of Astin (1982, 1985), Tinto (1987), and Pascarella and Terenzini (1991) seems well-grounded. Like the larger college student population, students who are members of ethnic minority groups and women students appear to be more successful in college in general and perhaps even in the classroom when they are involved. According to Pascarella and Terenzini (1991)

> the greater the student's involvement or engagement in academic work or in the academic experience of college, the greater his or her level of knowledge acquisition and general cognitive development. . . . A substantial amount of evidence indicates that there are instructional and programmatic interventions that not only increase a student's active

> engagement in learning and academic work but also enhance knowledge acquisition and some dimensions of both cognitive and psychological change. (p. 616)

Pascarella and Terenzini refer to the larger college student population, but similar conclusions about population subgroups seem to be indicated. For subgroups, the questions "involved in what" and "to what extent" remain. Additional study to define and evaluate the effects of specific academic experiences on population subgroups could prove most useful.

One theme of the research concerns the importance of faculty role models to students in each subgroup. Repeatedly, Black students and Hispanic students note the presence or absence of role models on campus and researchers conclude that efforts to recruit classroom instructors who can serve as role models are well-placed. Asian American students and women students also show evidence of benefiting from role models in the classroom. It may be the case that current efforts to train and recruit faculty members who women and\or members of minority groups are not enough. Possibly new strategies are needed in this important area.

Perhaps the most convincing conclusion to be drawn from this study concerns the investigation, or lack of it, of specific academic experiences of population subgroups. The findings reviewed here suggest that classroom experiences are important to students. For example, women seem to have greater levels of participation when they are allowed time to reflect on their responses and to interact with others in small groups. Little specific information about the effects of classroom practices on other population subgroups can be derived. As members of special populations become even more significant segments of the college student population, it is essential that ways be found to discover and address their particular academic needs.

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